

**Remarks**

Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

Claims 1-6 and 12-17 are currently pending in the application; Claims 1, 2, 4, and 6 having been amended, non-elected Claims 7-11 having been canceled, and new Claims 12-17 having been added by way of the present response.

In the outstanding Office Action, a corrected abstract was required. In response, Applicants have amended the abstract in accordance with the Examiner's helpful suggestions.

In the Office Action, the disclosure was objected to because of informalities. In response, Applicants have amended page 2 of the specification to correctly identify the patent documents listed. Thus, Applicants respectfully request that the objection to the specification be withdrawn.

In the Office Action, Claims 1, 2, and 4 were objected to because of informalities. In response, Applicants have amended the claims in a non-narrowing manner to overcome the objections and to further the prosecution of the application, and not in view of one or more references of record in the application. Specifically, Applicants have amended Claims 1, 2, 4, and 6 to recite "said desired liquid" in place of the previous recitations of "said liquid," as appropriate, in accordance with the Examiner's helpful suggestions. Thus, Applicants respectfully request that the objections to the claims be withdrawn.

In the Office Action, Claims 1, 3, and 6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Great Britain Publication No. 2 154 434 to Herdtle et al. (Herdtle). Claims 2, 4, and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Herdtle in view of U.S. Patent No. 5,132,038 to Kukanskis et al.

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Applicants respectfully request withdrawal of the rejections of the claims for the following reasons.

The current invention is directed to wet treatment methods useful in at least one of a chemical processing step and a rinsing step performed upon fabrication of semiconductor devices. As recited in independent Claim 1, in a sub-step, a substrate under treatment is treated with a desired liquid while causing the substrate to revolve around an axis of rotation outside the substrate such that the desired liquid flowing on a surface of the substrate is maintained flowing under a centrifugal force greater than gravitation. The substrate is treated while supplying a fresh liquid of the same kind as the desired liquid at a flow rate at least equal to a discharge rate of the desired liquid in a direction conforming with that of the centrifugal force or with that of a flow of the desired liquid flowing on the surface of the substrate under the centrifugal force. The substrate is evenly treated at the surface thereof with the desired liquid while avoiding development of such a situation that flows of the desired liquid run against each other on the surface of the substrate or a flow of the desired liquid stagnates on the surface of the substrate.

*wrong* → Herdtle is directed to a machine for washing circuit boards. As shown in Figure 2, for example, of Herdtle, a cleaning liquid is fed to a passage 120 and thus to spray nozzles 146. As shown in Figure 2, the spray nozzles 146 provide the cleaning liquid in a variety of directions. By this arrangement, the cleaning liquid can be distributed better over parts 37 of plate form, with the aim of an improved cleaning effect.<sup>1</sup>

However, Applicants respectfully assert that Herdtle does not teach the claimed features of a step wherein a substrate is treated while supplying a liquid only in a direction conforming with that of a centrifugal force or with that of a flow of the liquid

<sup>1</sup> From page 3, line 114 to page 4, line 4.

flowing on a surface of the substrate under said centrifugal force, as recited in independent Claim 1. Rather, as stated above, Herdtle shows spray nozzles 146 providing the cleaning liquid in a variety of directions, including directions that are not along a direction conforming with that of a centrifugal force or with that of a flow of the cleaning liquid flowing on a surface of the parts 37 under said centrifugal force.

Specifically, independent Claim 1 recites "said substrate is treated while supplying a fresh liquid of the same kind as said desired liquid at a flow rate at least equal to a discharge rate of said desired liquid only in a direction conforming with that of said centrifugal force or with that of a flow of said desired liquid flowing on said surface of said substrate under said centrifugal force." Thus, Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) of independent Claim 1 be withdrawn and the independent claim allowed.

Dependent Claims 2-6 depend from independent Claim 1, and are therefore also allowable for at least the same reasons as the independent claim, as well as for their own features. Thus, Applicants respectfully request that the rejections under 35 U.S.C. §§ 102(b) and 103(a) of dependent Claims 2-6 be withdrawn and the dependent claims allowed.

Regarding Claims 12-17, Applicants respectfully assert that support for the claims is self-evident from the originally filed disclosure, including the original claims, and that therefore no new matter has been added. Applicants respectfully assert that new independent Claim 12 includes features that are not taught or suggested by the references of records, such features including supplying a liquid to treat a substrate in a direction only along a direction of centrifugal force on the substrate during rotation. Thus, Applicants respectfully assert that independent Claim 12 is allowable. Dependent Claims 13-17 depend from independent Claim 12, and are therefore also

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allowable for the same reasons as the independent claim, as well as for their own features.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-6 and 12-17 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.



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Respectfully submitted,

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A handwritten signature in black ink, appearing to read "G. J. Maier", written over a horizontal line.

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